In the Claims:

Please amend claims as follows:

1. (previously presented) A spectacle lens comprising:

a front surface;

a back surface;

a peripheral edge; and

a vision correcting area having a refractive error correction, wherein at least a portion of the refractive error correction is based on a lens prescription determined by a wave front analysis of a wearer's eye and wherein the vision correcting area corrects non-conventional refractive error to provide at least a part of the wearer's vision correction and wherein the peripheral edge is capable of being modified to fit within an eyeglass frame.

2. (previously presented) The lens of claim 1 wherein the vision correcting area corrects for conventional refractive error.

3. (previously presented) The lens of claim 1 wherein the vision correcting area corrects for an aberration of the lens.

4. (previously presented) The lens of claim 1 wherein the lens comprises a material having a variable index of refraction.

5. (previously presented) The lens of claim 1 wherein the lens comprises a material having a modifiable index of refraction.

6. (previously presented) The lens of claim 1 wherein the back surface is concave.

7. (previously presented) The lens of claim 1 wherein the lens is capable of correcting non-conventional refractive error caused by one of an aberration, irregular astigmatism, and ocular layer irregularities.

8. (previously presented) The lens of claim 1 wherein the lens provides a prismatic power.

9. (previously presented) The lens of claim 1 wherein the lens has a chromic characteristic.

10. (previously presented) The lens of claim 1 wherein correction of unconventional refractive error is provided by localized changes in a refractive power of the lens.

11. (previously presented) The lens of claim 1 wherein the lens corrects the wearer's vision to better than 20/20.

12. (previously presented) The lens of claim 1 wherein the lens corrects the wearer's vision to better than 20/10.

13. (previously presented) A method for producing a spectacle lens for the correction of non-conventional refractive error comprising:

determining a lens prescription for unconventional refractive error based in part on a wave front analysis of an eye.

providing a lens to correct for refractive error having a front surface, a back surface, a vision correcting area, and a peripheral edge;

modifying the lens to provide correction of least a portion of the lens prescription for unconventional refractive error;

modifying the peripheral edge of the lens to fit within an eyeglass frame; and

inserting the lens into the eyeglass frame.

14. (previously presented) The method of claim 13 wherein the lens provided is manufactured from a semi-finished lens blank.

15. (previously presented) The method of claim 13 wherein the unconventional refractive error is corrected in part by a refractive index change.

16. (previously presented) A spectacle lens comprising:

a front surface;

a back surface;

a peripheral edge; and

a vision correcting area having a refractive error correction, wherein the vision correcting area uses adaptive optics to correct for non-conventional refractive error to provide a wearer better than 20/20 vision and wherein the peripheral edge is capable of being modified to fit within an eyeglass frame.

17. (previously presented) An apparatus for determining the refractive error of a patient's eye, comprising:

an optic within the line of sight of the patient's eye, wherein the optic is capable of refracting light entering the patient's eye; and

a wavefront measurement device positioned to measure the refraction properties of the patient's eye;

wherein an optical power of the optic is adjusted while the patient looks through the optic.

18. (previously presented) The apparatus of claim 17 wherein the refractive error of the patient's eye is at least one of conventional and non-conventional refractive error.

19. (previously presented) The apparatus of claim 17 wherein the optic is a lens.

20. (previously presented) The apparatus of claim 19 wherein the optic is an electro-active lens.

21. (previously presented) The apparatus of claim 17 wherein the refraction properties of the optic is adjusted in a closed-loop fashion based upon the measurements made by the wavefront measurement device.

22. (previously presented) The apparatus of claim 17 wherein the refraction properties of the optic at least one of conventional or non-conventional refraction properties.

23. (previously presented) The apparatus of claim 17 wherein the optic is modified in its power prescription as a final optical prescription for the patient is determined.

24. (previously presented) The apparatus of claim 17 wherein the optic is modified in its power prescription as the patient determines his or her visual clarity.

25. (previously presented) The apparatus of claim 17 wherein the refractive error is one of myopia, hyperopia, astigmatism, presbyopia, irregular astigmatism or an aberration.

26. (previously presented) The apparatus of claim 25 wherein the source of the aberration is within the human eye.

27. (previously presented) The apparatus of claim 17 wherein the measurements of the refraction properties of the patient's eye are determined subjectively, objectively or both.

28 (previously presented) An optical measuring system for quantifying the refractive error of a human eye comprising:

a refractor or phoropter; and

an auto-refractor or wave-front analyzer associated with the refractor or phoropter, wherein the refractive error is at least one of conventional refractive error or non-conventional refractive error, and wherein the optical measuring system quantifies the refractive error of a patient's eye along the line of sight of the patient's eye.

29. (previously presented) The optical measuring system of claim 28 wherein the optical measuring system quantifies the refractive error automatically.

30. (previously presented) The optical measuring system of claim 28 wherein the optical measuring system quantifies the refractive error with the aid of an eye-care professional.

31. (previously presented) The optical measuring system of claim 28 wherein the optical measuring system measures the refractive error with the aid of the patient.

32. (previously presented) The optical measuring system of claim 28 wherein a lens is inserted in front of the patient's eye and wherein the lens is modified to correct for the patient's refractive error as the patient's refractive error is being quantified.

33. (previously presented) The optical measuring system of claim 32 wherein by the lens is modified in its prescription as the patient decides on his or her visual clarity in response to the modification of the lens.

34. (previously presented) The optical measuring system of claim 28 wherein the conventional refractive error is one of myopia, astigmatism, hyperopia, presbyopia, and wherein the non-conventional refractive error is one of irregular astigmatism and an aberration.

35. (previously presented) The optical measuring system of claim 34 wherein the aberration is within the human eye.

36. (previously presented) The optical measuring system of claim 28 wherein the refractive error of the patient is determined by at least one of subjective and objective measurements of the patient's eye.

37. (new) A method of examining a patient's eyes using a wave-front analyzer and a lens, wherein the lens corrects a patient's vision while the patient is seeing an image through the lens and while measurements are being generated by the wave-front analyzer.

38. (new) The wave-front analyzer of claim 37, wherein the lens is an electro-active lens.

39. (new) A system for measuring a refractive error of a patient, comprising a wave-front analyzer and at least one lens, wherein the system is capable of providing the patient with improved vision while the patient is looking through the at least one lens, while the wave-front analyzer is taking measurements.

40. (new) The system of claim 39, wherein the wave-front analyzer is coupled to an electro-active lens.

41. (new) The system of claim 39, wherein the wave-front analyzer is coupled to a conventional lens.

42. (new) The system of claim 39, wherein the refractive error is at least one of conventional refractive error and non-conventional refractive error.

43. (new) A system for measuring a refractive error of a patient comprising a wave-front analyzer and at least one lens, wherein the system is capable of subjectively and objectively measuring the patient's refractive error.

44. (new) The system of claim 43, wherein the wave-front analyzer is coupled to an electro-active lens.

45. (new) The system of claim 43, wherein the wave-front analyzer is coupled to a conventional lens.

46. (new) The system of claim 43, wherein the refractive error is at least one of conventional refractive error and non-conventional refractive error.

47. (new) A method of correcting a patient's vision by combining a subjective eye exam with a wave-front analysis of the patient's eye to correct conventional and non-conventional refractive error.

48. (new) The method of claim 47, wherein the subjective eye exam utilizes at least one conventional lens.

49. (new) The method of claim 47, wherein the subjective eye exam utilizes at least one electro-active lens.

50. (new) The method of claim 47, wherein the non-conventional refractive error correction corrects for at least one aberration.